

CLAIMS:

1. (currently amended): A low force electrical contact of the type in which a socket is provided that includes a plurality of tines, each of said plurality of tines adapted to extend radially away from a center, wherein the improvement comprises:

including with each of said plurality of tines a patch proximate a tip, said patch having a thickness that is greater than an adjoining undercut portion and wherein said plurality of tines are adapted to contact a pin during its insertion when an axial misalignment occurs in any direction between a center longitudinal axis of said pin and a center longitudinal axis of said plurality of tines.

2. (currently amended): A low force electrical contact of the type in which a socket is provided that includes a plurality of tines, each of said plurality of tines adapted to extend radially away from a center, wherein the improvement comprises:

forming at least a portion of each of said plurality of tines from an high yield strength electrically conducting material and including with each of said plurality of tines a portion proximate a tip, said

portion having a thickness that is greater than an adjoining undercut portion and wherein said plurality of tines are adapted to contact a pin during its insertion when an axial misalignment occurs in any direction between a center longitudinal axis of said pin and a center longitudinal axis of said plurality of tines.

3. (currently amended): A low force electrical contact of the type in which a socket is provided that includes a plurality of tines, each of said plurality of tines adapted to extend radially away from a center, wherein the improvement comprises:

providing at each of said plurality of tines a first stage proximate a socket contact base that includes a first inner diameter and a ~~second stage~~ that is disposed at the socket contact base at one end thereof and which extends therefrom to a distal end and where ~~the a second stage is attached and~~ includes a second inner diameter at said one end thereof that is greater than the first inner diameter and wherein each of said plurality of tines includes a patch proximate a tip, said patch having a thickness that is greater than an adjoining undercut portion and wherein said plurality

of tines are adapted to contact a pin during its insertion when an axial misalignment occurs in any direction between a center longitudinal axis of said pin and a center longitudinal axis of said plurality of tines.

4. (currently amended): A low force electrical contact, comprising:

(a) a socket;

(b) a plurality of tines disposed in said socket, ~~at least a portion of each of said tines formed of a high yield strength of metal;~~

(c) ~~means for receiving said plurality of tines adapted to receive a pin in said socket,~~ wherein said pin includes a first center longitudinal axis that is not in parallel alignment with a second center longitudinal axis of said socket, and

(d) means for connecting a wire to said socket; and

wherein said plurality of tines are adapted to contact
said pin during its insertion when an axial
misalignment occurs in any direction between a center
longitudinal axis of said pin and a center longitudinal
axis of said plurality of tines.

5. (original): The low force electrical contact of claim 4 wherein each of said tines includes a first stage and a second stage, said first stage having a first wall thickness that is thicker than a second wall thickness of said second stage that is disposed proximate to said first stage and which extends therefrom toward a tip of each tine.

6. (currently amended): The low force electrical contact of claim 4 ~~wherein said means for receiving a pin in said socket includes providing~~ including an undercut portion in each of said tines a predetermined distance from said tip.

7. (original): The low force electrical contact of claim 6 wherein said undercut portion extends to said first stage.

8. (original): The low force electrical contact of claim 6 wherein each of said tines includes a patch of material that is adapted to contact a pin, said patch being disposed intermediate said tip and said undercut portion.

9. (original): The low force electrical contact of claim 8 wherein said patch of material includes a greater thickness of material than said undercut portion.

10. (currently amended): The low force electrical contact of claim 8 wherein said a diametrically opposed pair of said patches of material includes an inside diameter that is less than an inside diameter of said undercut portion.

11. (original): The low force electrical contact of claim 4 wherein each of said plurality of tines is adapted to extend radially away from a center longitudinal axis.

12. (original): The low force electrical contact of claim 7 wherein each of said plurality of tines is adapted to make contact with said pin along a portion of the longitudinal

length of each of said plurality of tines proximate a tip of each of said tines when said pin is inserted into said socket.

13. (currently amended): The low force electrical contact of claim 4 wherein each of said plurality of tines ~~includes a set that~~ is machined ~~therein~~ whereby~~in~~ a tip of each of said plurality of tines is normally disposed closer to a center of said socket when said socket is not mated with a pin than is a second end of each of said plurality of tines that is disposed distally from said tip.

14. (currently amended): The low force electrical contact of claim 4 wherein each of said plurality of tines includes a first outside diameter that is proximate a tip and a second outside diameter that is greater than said first outside diameter, said second outside diameter being ~~is~~ disposed at-~~a~~distally ~~end~~ from said tip, and wherein each of said plurality of tines ~~includes a~~ progressively increases in the outside diameter from said tip to said distal end.

15. (currently amended): The low force electrical contact of claim 10 wherein said socket includes a hood having a predetermined inside diameter that surrounds said plurality of tines, and wherein when a said pin is mated inside of said socket, said plurality of tines extend radially outward a greater amount at said tip than at a socket contact said distal end, and wherein a gap that exists intermediate said plurality of tines and said inside diameter of said hood is substantially identical along the longitudinal length of said plurality of tines.

16. (currently amended): The low force electrical contact of claim 4 wherein ~~said means for receiving a pin in said~~ socket is adapted to accommodate an angular misalignment of a first center longitudinal axis of said pin with respect to a second center longitudinal axis of said socket.

17. (original): The low force electrical contact of claim 16 wherein said angular misalignment is equal to or less than three degrees in magnitude.